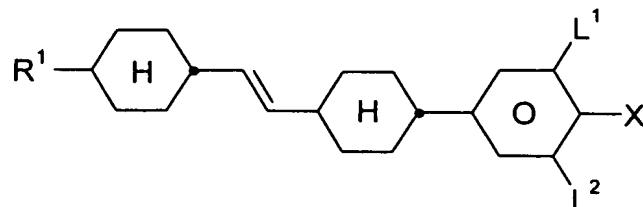


**Patent Claims**

1. Liquid-crystalline medium based on a mixture of polar compounds, characterised in that it comprises one or more compounds of the

5 formula I

10



in which

15

R¹ is a halogenated or unsubstituted alkyl or alkoxy radical having from 1 to 15 carbon atoms, where, in addition, one or more CH<sub>2</sub> groups in these radicals may each, independently of one another, be replaced by -C≡C-, -CH=CH-, -O-, -CO-O- or -O-CO- in such a way that O atoms are not linked directly to one another,

20

X is F, Cl, CN, a halogenated alkyl radical, a halogenated alkenyl radical, a halogenated alkoxy radical or a halogenated alkenyloxy radical having up to 6 carbon atoms, and

25

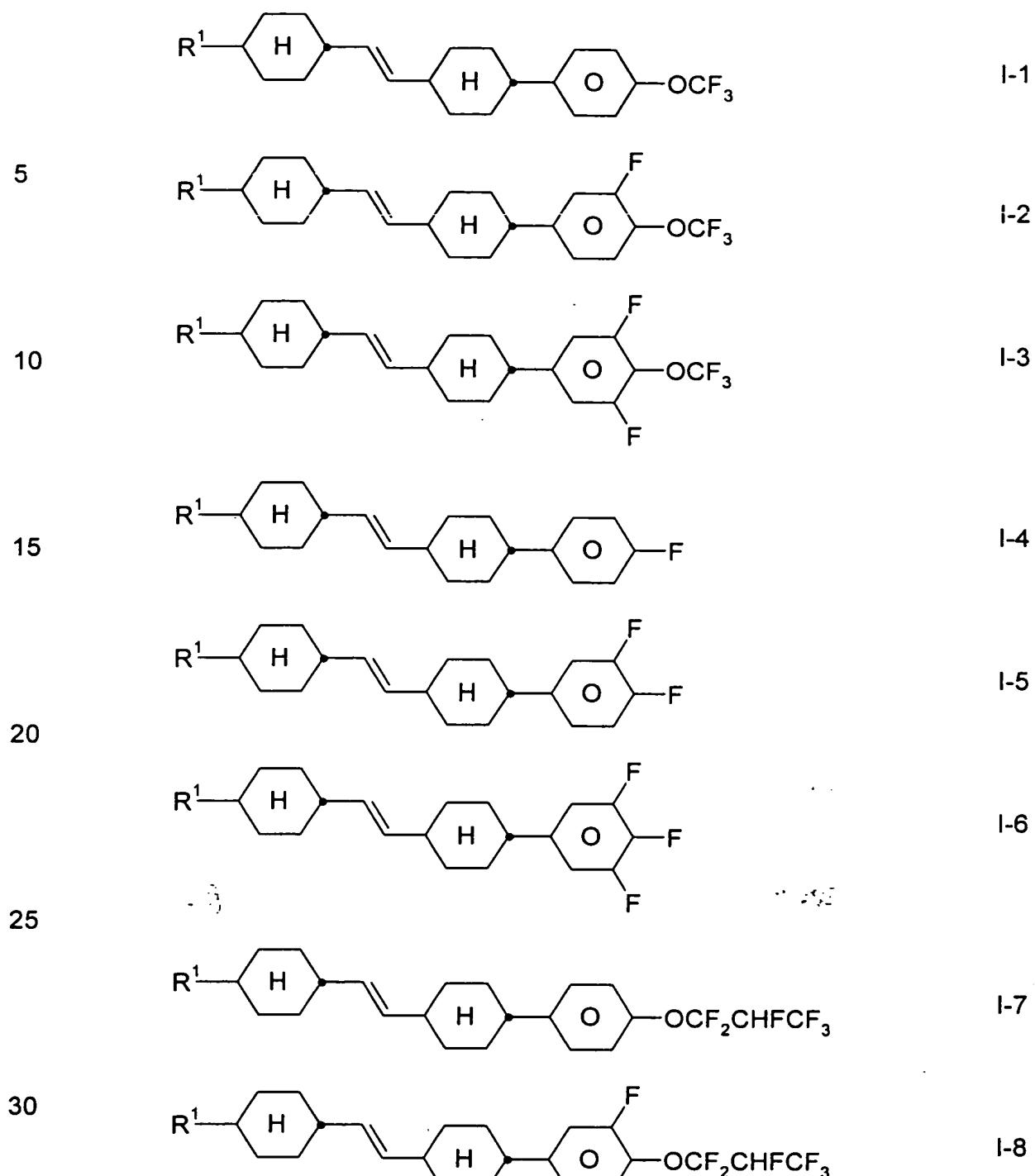
L¹ and L² are each, independently of one another, H or F.

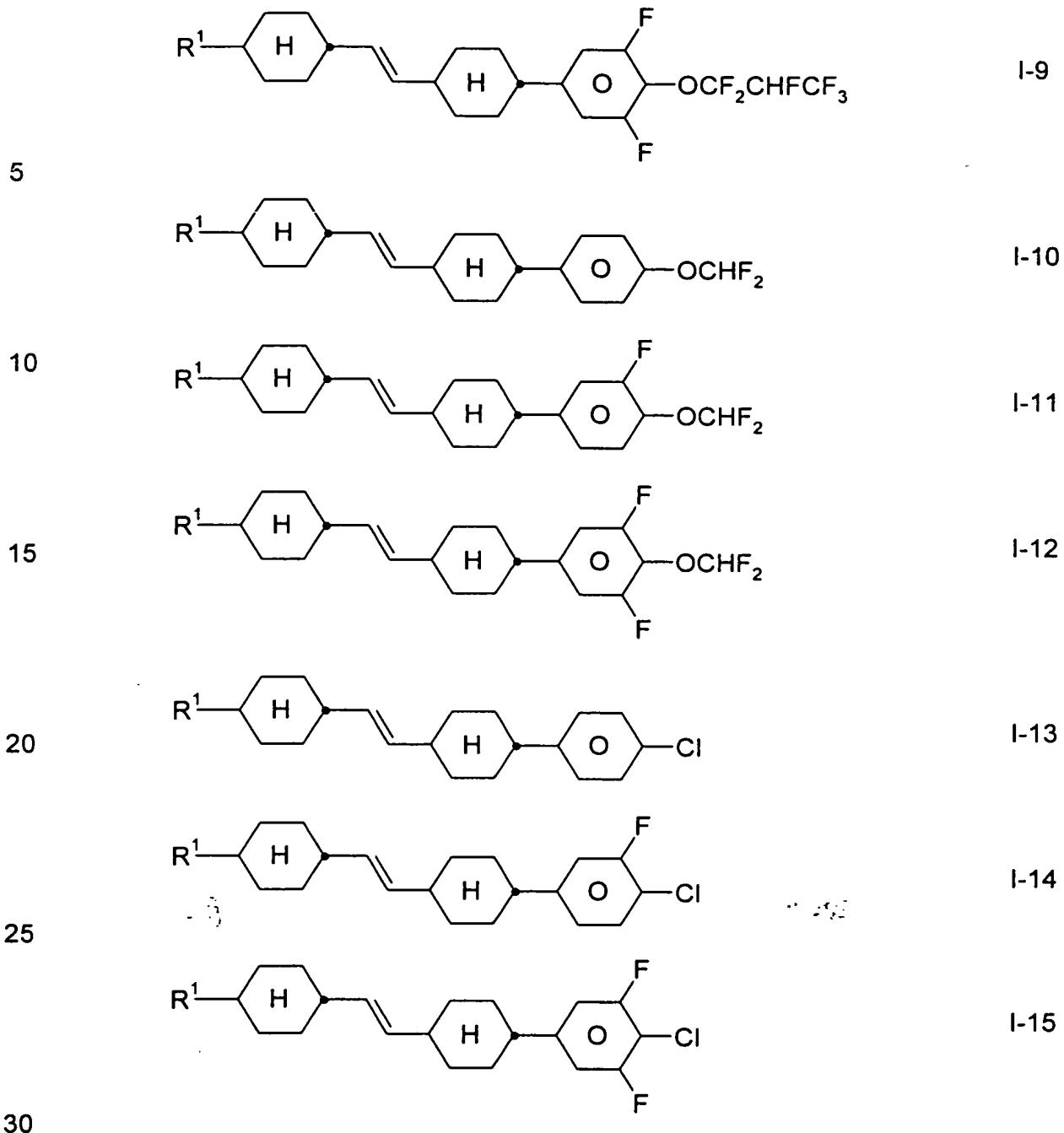
30

2. Liquid-crystalline medium according to Claim 1, characterised in that R¹ = alkenyl in the compound of the formula I.

3. Liquid-crystalline medium according to Claim 1 or 2, characterised in that it comprises one, two or more compounds of the formulae I-1 to I-15

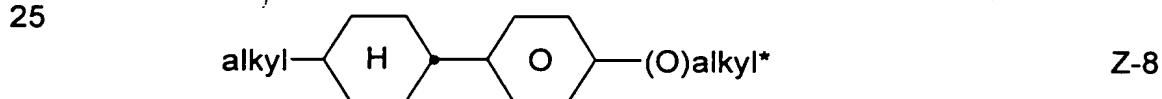
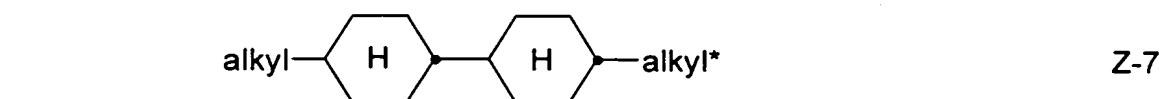
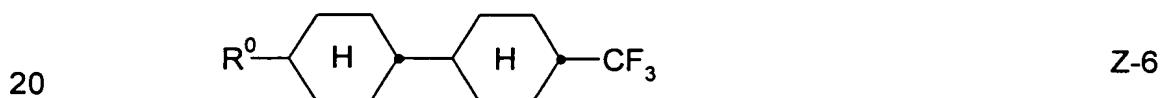
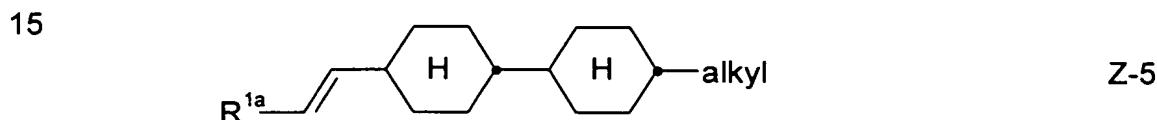
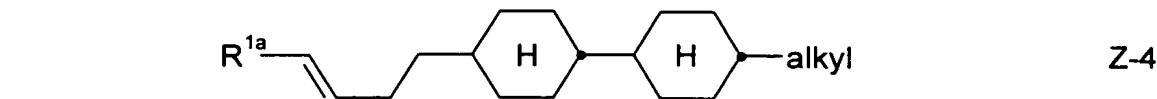
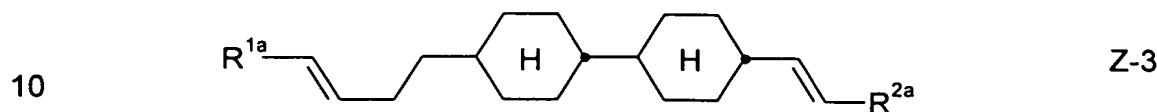
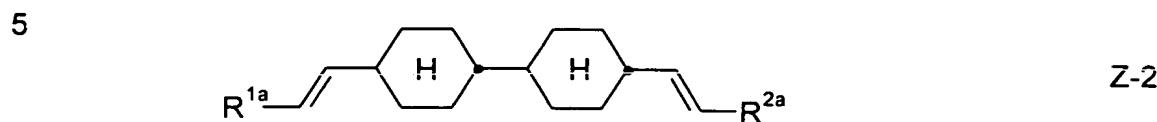
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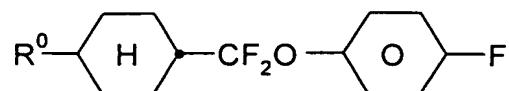
in which  $R^1$  is as defined in Claim 1.

35 4. Liquid-crystalline medium according to one of Claims 1 to 3, characterised in that it comprises one, two or more bicyclic compounds of the formulae Z-1 to Z-8



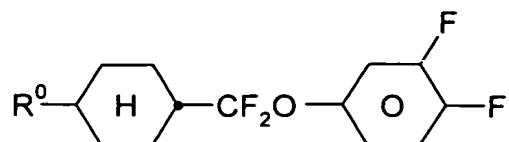
30 in which  $R^{1a}$  and  $R^{2a}$  are each, independently of one another, H,  $CH_3$ ,  $C_2H_5$  or  $n-C_3H_7$ , and alkyl and alkyl\* are each, independently of one another, a straight-chain or branched alkyl group having 1-7 carbon atoms.

35 5. Liquid-crystalline medium according to one of Claims 1 to 4,  
characterised in that it comprises one or more compounds of the  
formulae Q-1 to Q-15



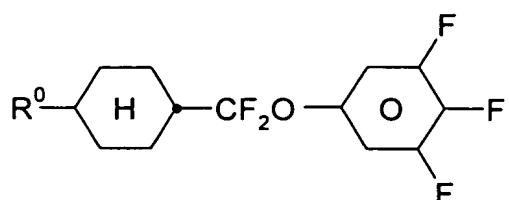
Q-1

5



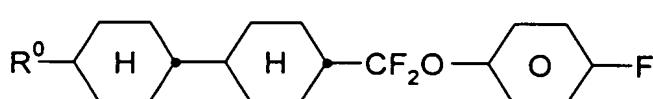
Q-2

10



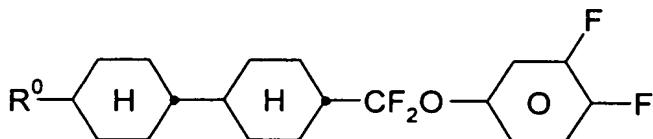
Q-3

15



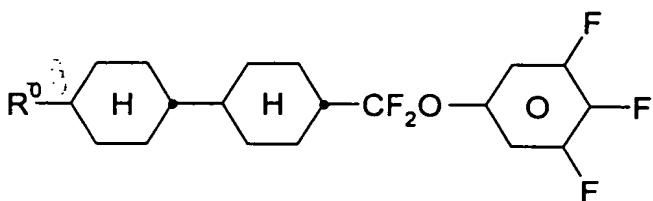
Q-4

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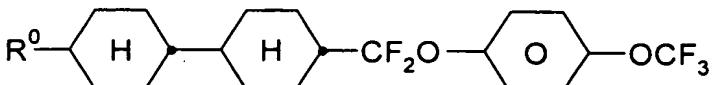
Q-5

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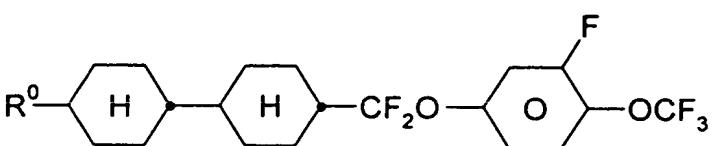


Q-6

30

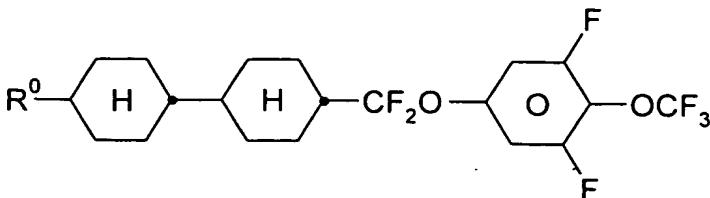


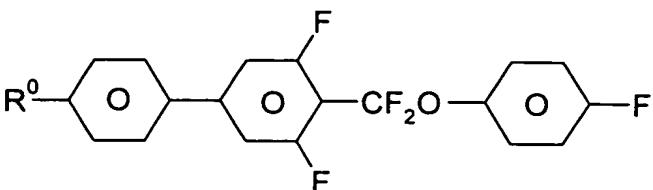
Q-7

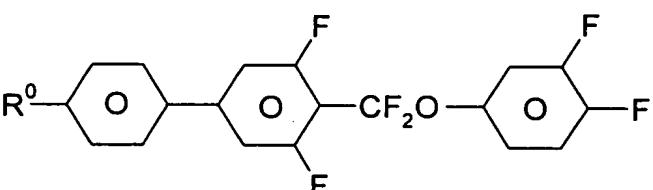


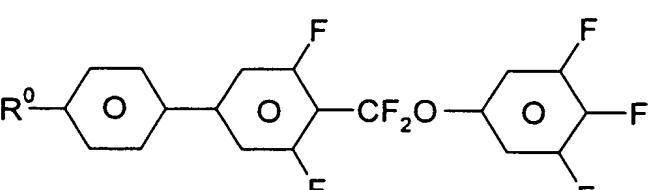
Q-8

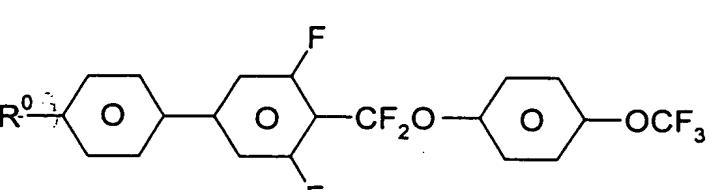
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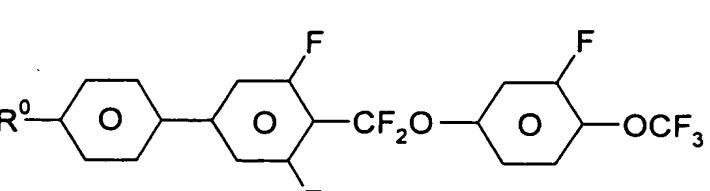
5  Q-9

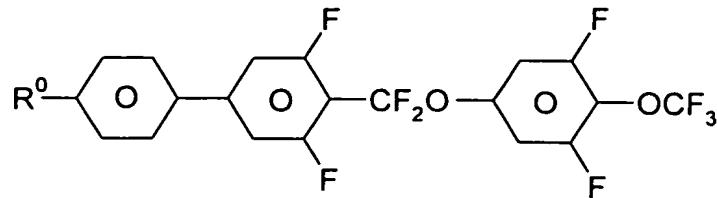
10  Q-10

15  Q-11

20  Q-12

25  Q-13

30  Q-14

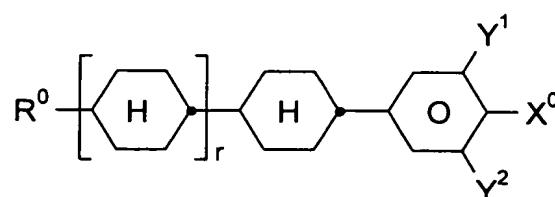


Q-15

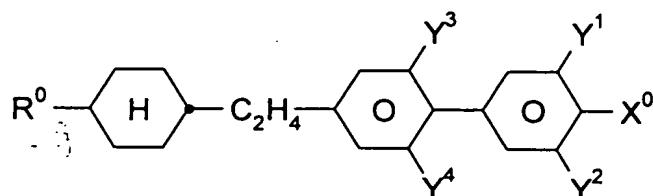
in which

10  $R^0$  is n-alkyl, oxaalkyl, alkoxy, alkenyloxy, fluoroalkyl or alkenyl, each having up to 9 carbon atoms.

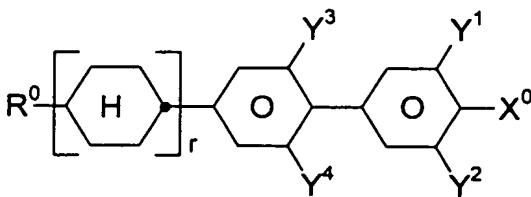
15 6. Liquid-crystalline medium according to one of Claims 1 to 5, characterised in that it additionally comprises one or more compounds selected from the group consisting of the general formulae II, III, IV, V and VI:



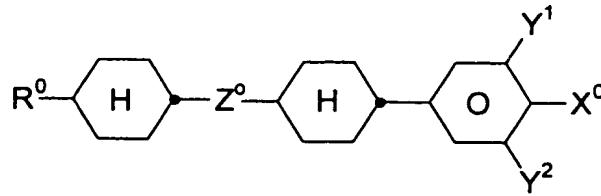
II



III

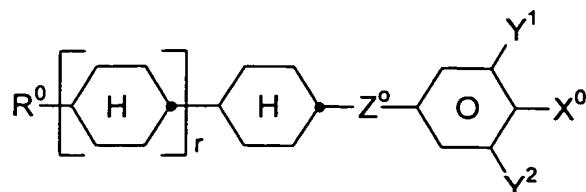


IV



V

5



VI

in which the individual radicals have the following meanings:

10       $R^0$       is n-alkyl, oxaalkyl, alkoxy, alkenyloxy, fluoroalkyl or alkenyl, each having up to 9 carbon atoms,

15       $X^0$       is F, Cl, halogenated alkyl, halogenated alkenyl, halogenated alkenyloxy or halogenated alkoxy having up to 6 carbon atoms,

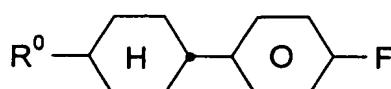
15       $Z^0$       is  $-C_2F_4-$ ,  $-CF=CF-$ ,  $-C_2H_4-$ ,  $-(CH_2)_4-$ ,  $-OCH_2-$ ,  $-CH_2O-$ ,  $-CF_2O-$  or  $-OCF_2-$ ,

20       $Y^1$  to  $Y^4$       are each, independently of one another, H or F,

20      r      is 0 or 1.

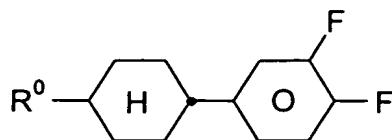
25      7. Liquid-crystalline medium according to Claim 6, characterised in that the proportion of compounds of the formulae I to VI together in the mixture as a whole is at least 50% by weight.

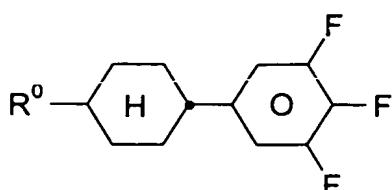
30      8. Liquid-crystalline medium according to at least one of Claims 1 to 7, characterised in that it additionally comprises one or more compounds of the formulae K-1 to K-27

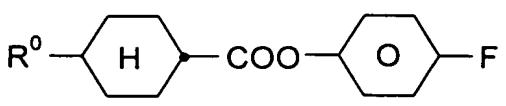


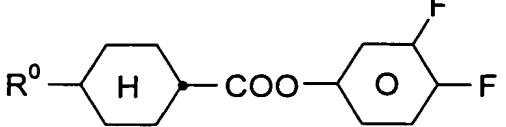
K-1

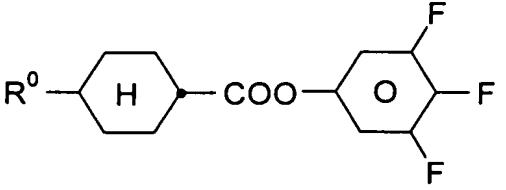
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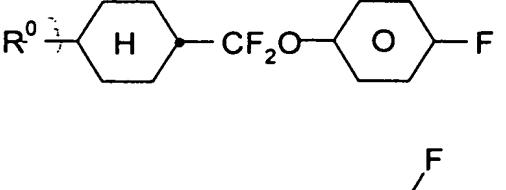
5  K-2

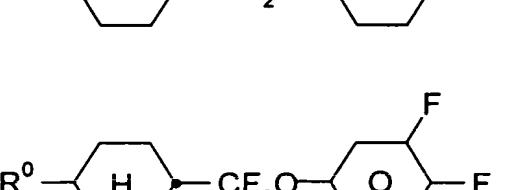
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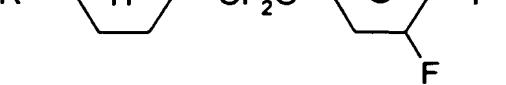
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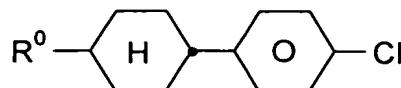
20  K-5

25  K-6

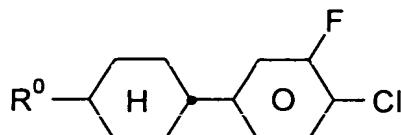
30  K-7

35  K-8

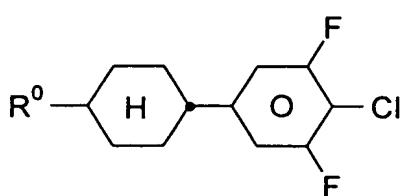
35  K-9



K-10



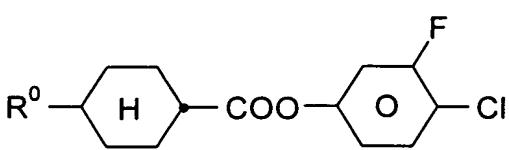
K-11



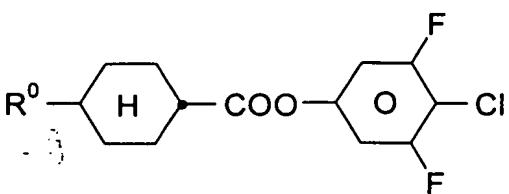
K-12



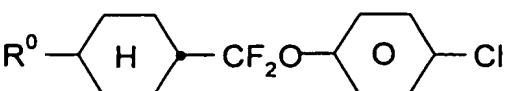
K-13



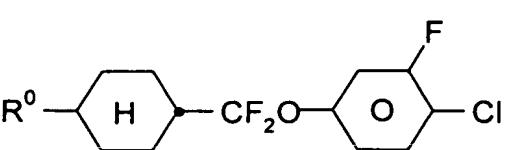
K-14



K-15

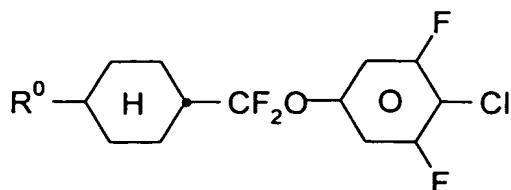
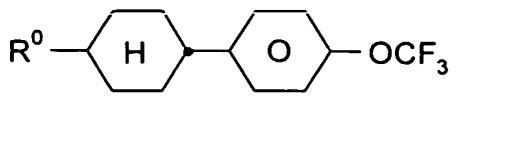
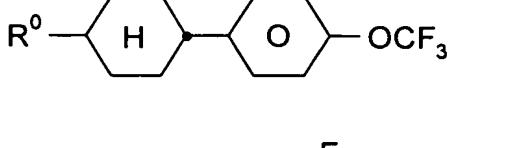
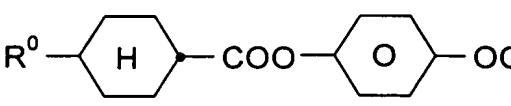
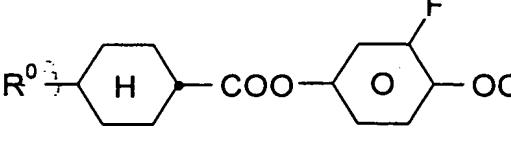
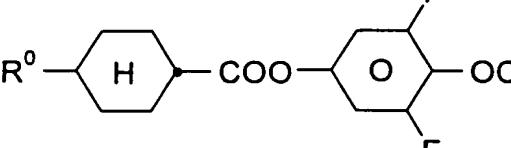
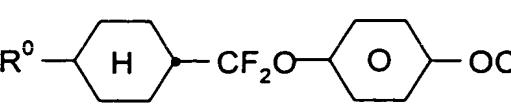
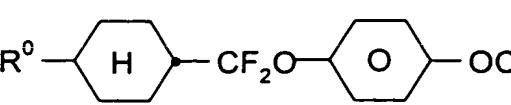


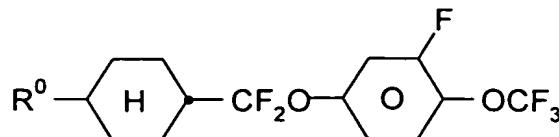
K-16



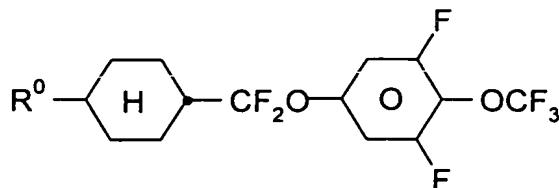
K-17

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		K-18
5		
		K-19
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		K-20
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		K-21
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		K-22
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		K-23
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		K-24
35		
		K-25



K-26



K-27

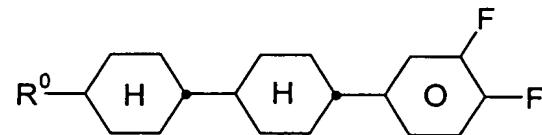
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in which  $R^0$  is as defined in Claim 6.

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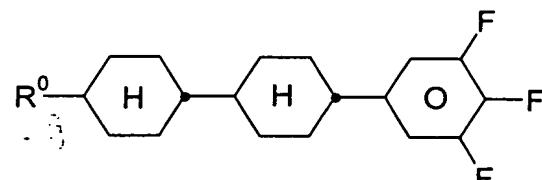
9. Liquid-crystalline medium according to at least one of Claims 1 to 8, characterised in that it comprises one or more compounds of the formulae IIa to IIg

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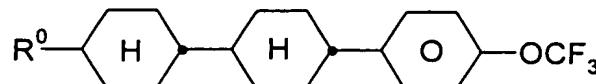
IIa

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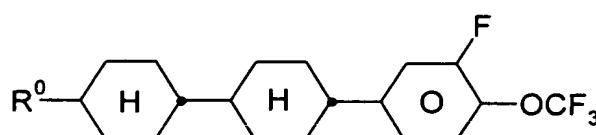
IIb

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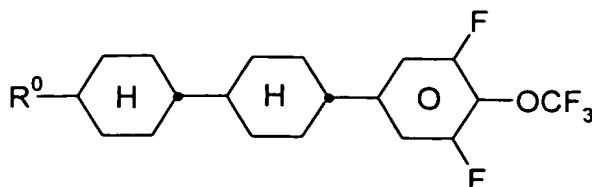
IIc

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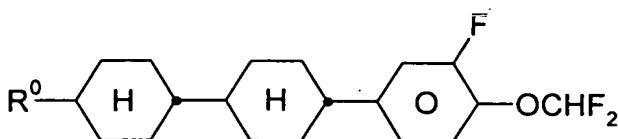
IId

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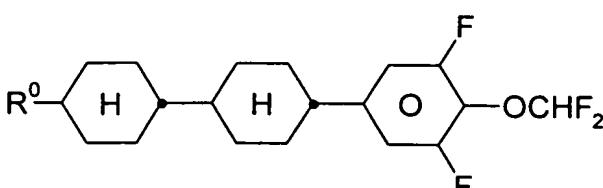
IIe

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IIIf

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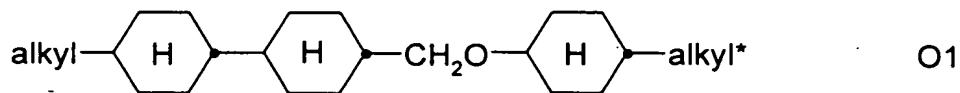


IIig

in which  $R^0$  is as defined in Claim 6.

10. Liquid-crystalline medium according to one of Claims 1 to 9,  
20 characterised in that it comprises one or more compounds of the  
formulae O1 and O2

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O1

30

in which

alkyl and alkyl\* are each, independently of one another, a straight-chain or branched alkyl group having 1-7 carbon atoms.

35

11. Liquid-crystalline medium according to at least one of Claims 1 to 10, characterised in that the proportion of compounds of the formula I in the mixture as a whole is from 0.5 to 40% by weight.
- 5 12. Use of the liquid-crystalline medium according to at least one of Claims 1 to 11 for electro-optical purposes.
13. Electro-optical liquid-crystal display containing a liquid-crystalline medium according to at least one of Claims 1 to 11.

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